

WHAT IS CLAIMED IS:

1. A stencil printing machine having a printing section composed of a rotary printing drum with an outer circumferential periphery to which a stencil sheet is mounted and a rotary press member which is moveable between a pressurized position to be pressed against the outer circumferential periphery of said printing drum and a separated position to be separated from the outer circumferential periphery of said printing drum, and a paper feed section for feeding print medium between said printing drum and said rotary press member, wherein print medium, fed from the paper feed section, is pressed between and transferred by said printing drum and said rotary press member both of which are rotated together, and during such a pressurized and transfer movement of print medium, print medium is transferred with ink to perform a printing operation, the stencil printing machine comprising:

said rotary press member including an outer circumferential periphery formed with micro-convexities and micro-concavities.

2. The stencil printing machine according to claim 1, wherein said micro-convexities and said micro-concavities of the outer circumferential periphery of said rotary press member has a depth of a value above 0.035 mm.

3. The stencil printing machine according to claim 1, wherein said micro-convexities and said micro-concavities of the outer circumferential periphery of said rotary press member has a depth of a value above 0.044 mm.

4. The stencil printing machine according to any one of preceding claims 1 to 3, wherein a distance between apexes of said micro-convexities and said micro-concavities of the outer circumferential periphery of said rotary press member has a value below 0.64 mm.

5. The stencil printing machine according to any one of preceding claims 1 to 4, wherein said micro-convexities and said micro-concavities of the outer circumferential periphery of said rotary press member are composed of

point-like convexities and concavities.

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5 6. The stencil printing machine according to any one of preceding claims 1 to 4, wherein said micro-convexities and said micro-concavities of the outer circumferential periphery of said rotary press member are composed of line-shaped convexities and concavities which are orientated in the same direction as that which print medium is transferred.

10 7. The stencil printing machine according to claim 5, wherein said point-like micro-convexities and micro-concavities of the outer circumferential periphery of said rotary press member are formed by locating a screen mesh to a surface of said rotary press member.

15 8. The stencil printing machine according to claim 5, wherein said point-like micro-convexities and micro-concavities of the outer circumferential periphery of said rotary press member are formed by locating a large number of spherical bodies to a surface of said rotary press member.

20 9. The stencil printing machine according to claim 1, further comprising a liquid application unit for applying liquid to the outer circumferential periphery of said rotary press member.

25 10. The stencil printing machine according to claim 9, wherein said liquid has a viscosity of a value below 1000 millipascal·second.

11. The stencil printing machine according to claim 9, wherein said liquid has a viscosity of a value below 500 millipascal·second.

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12. The stencil printing machine according to one of claims 9 to 11, wherein said liquid is composed of silicone oil.

13. The stencil printing machine according to claim 9, wherein said liquid application unit comprises a rotary liquid application roller held in pressured

contact with said rotational press member, and a liquid supply unit for supplying liquid to an outer circumferential periphery of said liquid application roller, wherein said liquid application roller rotates with said rotary press member to apply liquid, supplied by said liquid supply unit, to the outer circumferential periphery of said rotary press member.

14. The stencil printing machine according to claim 9, wherein said liquid application unit comprises a sheet-like member held in abutting contact with said rotary press member and impregnated with liquid, said sheet-like member being moveable while held in abutting contact with said rotary press member.

15. The stencil printing machine according to claim 9, wherein said liquid application unit comprises a biasing member held in abutting contact with said rotary press member and impregnated with liquid which is retained in said biasing member, and a liquid supply unit for supplying liquid to the outer circumferential periphery of said rotary press member at a point upstream of said biasing member in a direction which said rotary press member rotates.

16. The stencil printing machine according to claim 9, wherein said liquid application unit comprises a sheet-like member held in abutting contact with said rotary press member at an adjustable contact area and moveable to vary the position of said adjustable contact area, and a liquid supply unit for supplying liquid to the outer circumferential periphery of said rotary press member at a point upstream of said adjustable contact area of said sheet-like member in a direction which said rotary press member rotates.

17. A stencil printing machine having two sets of printing sections located at an upstream side and a downstream side, respectively, and each composed of a rotary printing drum with an outer circumferential periphery to which a stencil sheet is mounted and a rotary press member which is movable between a pressurized position to be pressed against the outer circumferential periphery of the printing drum and a separated position to be separate from

the outer circumferential periphery, a paper feed section for feeding print medium to the printing section at the upstream side, and an upstream transfer mechanism for transferring and feeding print medium, discharged from the printing section at the upstream side, to the printing section at the downstream side, wherein print medium, fed from the paper feed section to the printing section at the upstream side, is pressed between and transferred by the printing drum at the upstream side and the rotary press member both of which are rotated together, and during such a pressurized and transfer movement of print medium, one surface of print medium is transferred with ink and print medium is then fed to the printing section at the downstream side with the upstream transfer mechanism to allow print medium to be pressurized between and transferred by the printing drum and the rotational press member at the downstream side such that during such a pressurized and transfer movement, the other surface of print medium is transferred with ink to perform a double-phase printing operation, the stencil printing machine comprising:

at least said rotary press member, located at the downstream side member, including an outer circumferential periphery formed with micro-convexities and concavities.

18. The stencil printing machine according to claim 17, wherein said micro-convexities and said micro-concavities of the outer circumferential periphery of said rotary press member has a depth of a value above 0.035 mm.

19. The stencil printing machine according to claim 17, wherein said micro-convexities and said micro-concavities of the outer circumferential periphery of said rotary press member has a depth of a value above 0.044 mm.

20. The stencil printing machine according to any one of preceding claims 17 to 19, wherein a distance between apexes of said micro-convexities and said micro-concavities of the outer circumferential periphery of said rotary press member has a value below 0.64 mm.

21. The stencil printing machine according to any one of preceding claims 17 to 20, wherein said micro-convexities and said micro-concavities of the outer circumferential periphery of said rotary press member are composed of point-like convexities and concavities.

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22. The stencil printing machine according to any one of preceding claims 17 to 20, wherein said micro-convexities and said micro-concavities of the outer circumferential periphery of said rotary press member are composed of line-shaped convexities and concavities which are orientated in the same direction as that which print medium is transferred.

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23. The stencil printing machine according to claim 17, further comprising a liquid application unit for applying liquid to the outer circumferential periphery of said rotary press member.

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